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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,304	02/05/2002	Shoji Hinata	9319S-000323	9656

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EXAMINER	
CHOWDHURY, TARIFUR RASHID	
ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,304	HINATA ET AL.	
	Examin r	Art Unit	
	Tarifur R Chowdhury	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6 and 11* is/are allowed.

6)☒ Claim(s) *1-5,7-10 and 12-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

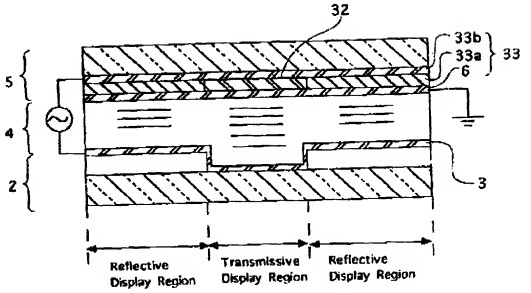
2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-4, 7-9 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al., (Kubota), US 2002/0171792.

2. Kubota discloses and shows in Fig. 7, a transflective liquid crystal display device comprising:

- a liquid crystal arranged between first and second substrates;

Fig. 7



- a reflective conductive film formed on the first substrate and reflecting light from outside of the second substrate;

- a pixel electrode (3) (applicant's light transmitting metal oxide film) (page 4, paragraph 0055) laminated on the reflective conductive film so that the edge of the metal oxide film is in contact with the first substrate; and

wherein the outer edge of the pixel electrode transmits light from outside the first substrate while the reflective conductive film reflects light from the outside of the second substrate.

Further, typically a liquid crystal display device includes a plurality of pixels (applicant's plurality of dot areas) and thus would have been obvious to avail a proven structure for a liquid crystal display.

Accordingly, claims 1 and 3 would have been obvious.

As to claim 7, Kubota also shows in Fig. 7 that the reflective conductive film and the metal oxide form a first electrode for applying voltage to the liquid crystal layer.

As to claim 8, Kubota also shows in Fig. 7 that the device further comprising a second electrode (6) formed on the second substrate opposite to the first electrode, and a color layer (33a) provided corresponding to the crossing regions between the first and second electrodes.

As to claim 9, Kubota also shows that the first electrode comprises stripe electrode constituting a simple matrix system liquid crystal device.

As to claim 13, Kubota discloses that the metal oxide film is made of ITO (page 0063).

As to claim 14, it is clear from Fig. 7 of Kubota that the area of the edge in contact with the first substrate is between 10-70%, preferably 30 to 50% of the area of one display dot to which the edge belongs.

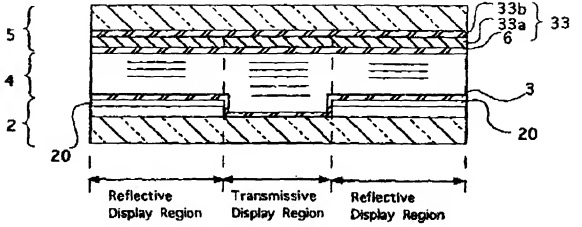
As to claim 16, since the method of manufacturing the liquid crystal display device is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

As to claim 18, Kubota discloses that the display can be used in a personal digital assistant device or in a television (electronic apparatus) (page 6, paragraph 0075).

As to claim 2, Kubota shows in Fig 8, a transflective liquid crystal display device comprising:

- a liquid crystal arranged between first and second substrates;

Fig. 8



- an underlying layer provided on the first substrate;
- a reflective conductive film (20) formed on the underlying film, reflecting light from outside the second substrate;
- a pixel electrode (3) (applicant's light-transmitting metal oxide) film laminated on the reflective conductive film (20) so that the edge of the metal oxide film (3) is in contact with the underlying film;

wherein the outer edge of the metal oxide film transmits light from outside the first substrate.

Further, typically a liquid crystal display device includes a plurality of pixels (applicant's plurality of dot areas) and thus would have been obvious to avail a proven structure for a liquid crystal display.

Accordingly, claims 2 and 4 would have been obvious.

As to claim 15, it is clear from Fig. 8 of Kubota that the area of the edge in contact with the first substrate is between 10-70%, of the area of one display dot to which the edge belongs.

As to claim 17, since the method of manufacturing the liquid crystal display device is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

As to claim 10, using the liquid crystal display device in an active matrix system is common and known in the art and thus would have been obvious to reduce cross talk.

As to claim 12, forming a reflective conductive film from a single silver layer or an alloy containing silver is common and known in the art and thus would have been obvious to avail a proven material (see class 349, subclass 113).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2, 5 and 17 are provisionally rejected under the judicially created doctrine

of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 09/865,046. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been at least obvious to one of ordinary skill in art that the reflective film reflects light from outside the second substrate and that the outer edge of the metal oxide film transmits light from outside the first substrate to obtain a brighter display. Further, a typical structure for a liquid crystal display includes multiple pixels. Further, as to claim 17, since the method of manufacturing the liquid crystal display device is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 6 and 11 are allowed.

Response to Arguments

4. Applicant's arguments filed on 10/06/03 have been fully considered but they are not persuasive.

In response to applicant's argument that Kubota fails to teach an outer edge of a metal oxide film transmitting light from outside a first substrate, while a reflective film reflects light from outside a second substrate, in each of the plurality of dot areas, it is respectfully pointed to applicant that first of all Kubota shows only one pixel (dot area) of a display and a liquid crystal display device inherently includes a plurality of pixels.

Further, the edge of the metal oxide film of Kubota is also made of a transparent material such as ITO and thus it would at least been obvious to one of ordinary skill in the art that the edge of the metal oxide film transmit light from outside the first substrate. It is also respectfully pointed out to applicant that Kubota also identifies the area where the edge of the metal oxide film contacts the first substrate as "transmissive region". Further Kubota also identifies the area where the reflective conductive film is formed as "reflective region" and thus it would also been obvious to one of ordinary skill in the art that the reflective conductive film reflects light from outside the second substrate since the viewer is located near the second substrate.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

T. Chowdhury
Primary Examiner
Technology Center 2800

TRC
November 22, 2003